

LISTING OF THE CLAIMS:

86-92 (Canceled)

93. (Withdrawn from consideration) A method of identifying an antagonist of GIP receptor, comprising obtaining a candidate compound, contacting a cell which expresses said GIP receptor on its surface with said candidate compound and determining whether or not said candidate compound competitively inhibits the binding of the isolated polypeptide of claim 86 or claim 88 to said GIP receptor.

94. (Canceled)

95. (Withdrawn from consideration) A method for reducing postprandial insulin levels in a host, comprising administering to a host in need thereof a therapeutically effective amount of the polypeptide of claim 86.

96. (Withdrawn from consideration) A method for reducing postprandial insulin levels in a host, comprising administering to a host in need thereof a therapeutically effective amount of the polypeptide of claim 88.

97. (Withdrawn from consideration) A method for inhibiting GIP binding to GIP receptor in a host, comprising administering to a host in need thereof a therapeutically effective amount of the polypeptide of claim 86.

98. (Withdrawn from consideration) A method for inhibiting GIP binding to GIP receptor in a host, comprising administering to a host in need thereof a therapeutically effective amount of the polypeptide of claim 88.

99-104. (Canceled)

105. (Withdrawn from consideration) A method for reducing glucose absorption in a mammalian intestine, comprising administering to a mammal in need thereof, an effective amount of a pharmaceutical composition comprising the isolated polypeptide of claim 86 or claim 100.

106. (Withdrawn from consideration) The method of claim 105 wherein reducing glucose absorption in the mammalian intestine improves glucose tolerance.

107. (Withdrawn from consideration) The method of claim 106 wherein the mammalian intestine is human.

108. (Withdrawn from consideration) A method of inhibiting GIP binding to GIP receptor in a subject, comprising administering to said subject an effective amount of the composition of claim 89 in a pharmaceutically acceptable carrier.

109. (Withdrawn from consideration) The method of claim 108 wherein the composition further includes an inert pharmaceutical excipient selected from the group consisting of sweetening, flavoring, coloring, dispersing, disintegrating, binding, granulating, suspending, wetting, preservative and demulcent agents.

110. (Withdrawn from consideration) A method for reducing postprandial insulin levels in a subject, comprising administering to said subject an effective amount of the isolated polypeptide of claim 101 in a pharmaceutically acceptable composition.

111. (Withdrawn from consideration) A monoclonal antibody which recognizes the isolated polypeptide of claim 86.

112. (Withdrawn from consideration) The antibody of claim 111 wherein the antibody is lyophilized.

113. (Withdrawn from consideration) A composition comprising the antibody of claim 111 in a pharmaceutically acceptable carrier.
114. (Withdrawn from consideration) A monoclonal antibody which recognizes the isolated polypeptide of claim 88.
115. (Withdrawn from consideration) The antibody of claim 114 wherein the antibody is lyophilized.
116. (Withdrawn from consideration) A composition comprising the antibody of claim 114 in a pharmaceutically acceptable carrier.
117. (new) An isolated glucose dependent insulinotropic polypeptide (GIP) antagonist consisting essentially of SEQ ID NO:5.
118. (new) The isolated polypeptide of claim 117 wherein His at position 9 of SEQ ID NO:5 is replaced with Arg.
119. (new) A composition comprising the isolated polypeptide of claim 117 or claim 118 in a pharmaceutically acceptable vehicle.
120. (new) The composition of claim 119 comprising the isolated polypeptide of claim 117 and claim 116 in a pharmaceutically acceptable vehicle.
121. (new) The composition of claim 119 or claim 120 further comprising an inert pharmaceutical excipient selected from the group consisting of sweetening, flavoring, coloring, dispersing, disintegrating, binding, granulating, suspending, wetting, preservative and demulcent agents.
122. (new) The composition of claim 121 wherein the composition is lyophilized.

123. (new) A screening method to identify a glucose-dependent insulinotropic (GIP) antagonist, comprising:

contacting a cell which expresses GIP receptor on its surface with a candidate polypeptide compound in the presence of the isolated polypeptide of claim 117; and determining whether or not said candidate compound competitively inhibits the binding of said isolated polypeptide to said GIP receptor
wherein inhibition of binding of the polypeptide of claim 117 identifies a candidate polypeptide GIP antagonist.

124. (new) An isolated polypeptide glucose-dependent insulinotropic (GIP) antagonist consisting essentially of a polypeptide having the amino acid sequence of SEQ ID NO:5 wherein one neutral amino acid selected from position 3,4,8,14,17, 18 and 19 of SEQ ID NO:5 is replaced with a non-identical neutral amino acid selected from the group consisting of valine, proline, leucine, isoleucine, glycine, and alanine.

125. (new) The isolated polypeptide of claim 124 wherein one or both isoleucines at positions 3 and 8 in SEQ ID NO:5 is replaced with an amino acid selected from the group consisting of valine, proline, leucine, glycine, and alanine.

126. (new) The isolated polypeptide of claim 124 wherein the amino acid is selected from the group consisting of valine and proline.

127. (new) The isolated polypeptide of claim 117 wherein the aspartic acid at position 6 or 12 is replaced with glutamic acid.

128. (new) The isolated polypeptide of claim 117 wherein the aspartic acid residues at positions 6 and 12 are replaced with glutamic acid.

129. (new) The isolated polypeptide of claim 117 wherein histidine at position 9 is replaced with lysine.

130. (new) The isolated polypeptide of claim 117 wherein histidine at position 9 is replaced with arginine.